

# System i Capacity BackUp (CBU) Edition -Enhancements

Breakthrough Savings for Business Resiliency Deployment

Steve Finnes System i Business Resilience Product Manager finnes@us.ibm.com

i want to be ready for whatever tomorrow brings. i want control. i want an <mark>i</mark>.

© 2006 IBM Corporation

-	-	
	_	and in case of the local division of the loc
		BTE
-		

# IBM System i Capacity BackUp Edition Summary

### Breakthrough Savings for Business Resiliency Deployment

- Versatile:
  - Choose the right business resiliency approach for your company
  - Supports a broad range of high availability and disaster recovery solution options
- Flexible:
  - Deploy your assets where and when your business needs them most
  - Transfer i5/OS and 5250 Enterprise Enablement between systems

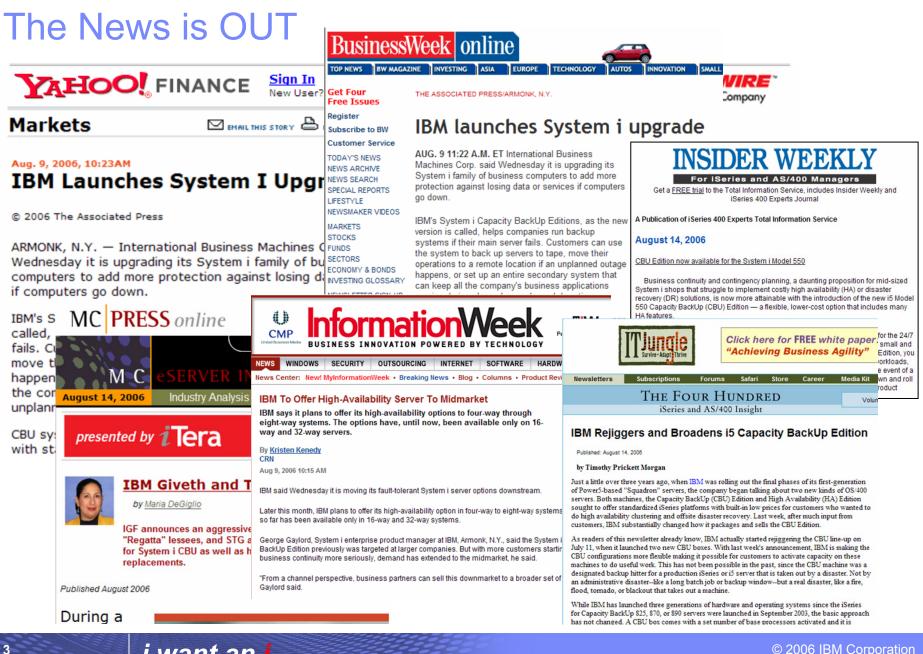
#### Expandable:

- Buy what you need today and add as your business grows
- Enable Capacity on Demand processors permanently or temporarily
- Comprehensive and cost effective:
  - Supports applications running in i5/OS, Linux or AIX 5L partitions on qualifying systems
  - Expanded 520/550/570/595 CBU Editions, with or without 5250 OLTP applications

#### www.ibm.com/systems/i/hardware/cbu

#### IBM System i





i want an i.

© 2006 IBM Corporation

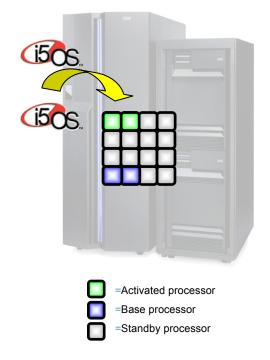
-	_		-		
the second se	-		-	- 11	_
		-			
	-				
_	_	_	_		_

# System i Capacity BackUp Edition Enhancements

- Dramatic new flexibility enables CBU Editions to support the full range of business resiliency requirements from Disaster Recovery to High Availability
- Clients may now permanently activate standby processors to support additional applications or high availability operations
- Clients may now use processors on a CBU Edition to provide failover/role-swap for processors on its 'paired" production system without purchasing additional i5/OS licenses or Enterprise Enablement features, when the respective primary system processors are inactive

Additional CBU Edition offerings deliver CBU options to a broader set of mid-market and enterprise clients

- CBU Edition i520 (1w, 1/2w), i550 (1/4w), i570 (1/4w, 1/8w), ۲ i595 (2/16w)
- CBU Editions to support Standard Edition primary systems ۲
- CBU Editions may now support i810, i825, i870 and i890 ۲ systems



#### www.ibm.com/systems/i/hardware/cbu

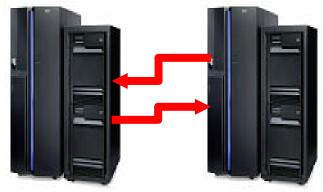
and the second s	-		
	-	-	
	<b>1</b>		
	-		

# System i Capacity BackUp Edition Offering

- Offering intended for:
  - Cost effective disaster recovery for multiple environments including i5/OS, AIX and Linux
  - Dynamic HA clustering environments
- July 11th Announce Letter
  - #106-509
- August 8 Announce Letter
  - #106-610
- September 10, Announce Letter
  - #106-716

5

- Offering now enables:
  - Purchase of permanent processor activations
  - Temporary transfer of i5/OS license entitlements from primary to CBU system
  - Temporary transfer of Enterprise Enablement entitlements\* from primary to CBU system (assuming systems have 5250 OLTP capability)
  - MES model upgrades into CBU Edition from System i models 810, 825, 870, 890



#### Prerequisites

- Primary server must be matching model System i 520/550/570/595 OR designated 810/825/870/890 system of equal or greater capacity
- If primary is Enterprise Edition, pair with CBU Edition (both have 5250 OLTP)
- If primary is Standard Edition, pair with CBU Standard Edition
- Registration of primary system and CBU Edition is required prior to CBU order (new box or MES upgrade) being manufactured: www.ibm.com/systems/i/hardware/cbu

<sup>\*</sup> Enterprise enablement 5xx terminology, but the concept applies to 8xx primary systems. If a processor's worth of 5250 capacity is not being used on the primary 8xx Enterprise Edition system, it can be temporarily transferred to a CBU Edition system



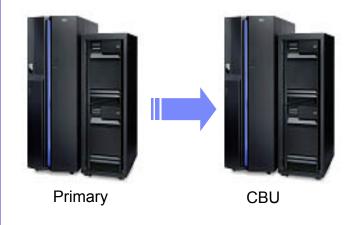
## **Transfer i5/OS and Enterprise Enablements**

#### **Register CBU System and Primary System**

- Primary system must be a matching model 520550/570/595 or designated 810, 825, 870 or 890
- Primary system must be equal to or larger than the CBU Edition system
- Primary system must match 5250 OLTP capability (CBU-to-Enterprise or CBU-Standard-to-Standard Edition)
- Declare how many "role swap processors"
- Sign license agreement
- Temporarily can transfer i5/OS and enterprise enablement processor entitlements for
  - Planned outage roll swaps
  - Unplanned outage failover
  - Testing

6

- Whole system or part of system. Example: move i5/OS & EE for just one partition assuming associated i5/OS or 5250 resource for that partition not in use on primary
- Note, processor activations can NOT be temporarily transferred. Processor activations require either
  - On/Off Capacity on Demand (which includes i5/OS licensing and Enterprise Enablement and does not require temporary entitlement transfers)
  - Permanent processor activations (for which temporary i5/OS and Enterprise Enablement entitlement transfers may be applied)



#### **Register at:**

https://www.ibm.com/systems/i/hardware/cbu

and the second se	-				-
		- 1	-		-
	_	-		-	-
	-		-		
_		-	-		
	_				

## System i CBU Enterprise Edition Content

#### Function

- Support for Multiple Operating Systems (i5/OS, AIX 5L, and Linux)
- 5250 Enterprise Enablement (full 5250 OLTP capability for 1200CPW or 2800CPW, 1 processor entitlement for the 1/2-way)
- Support for Web Modernization (enhanced WebFacing support)
- Support for Dynamic Logical Partitioning
- Support for Capacity on Demand (for the 1/2 way)

#### Software

7

- Licensing for i5/OS (one processor license entitlement)
- e-business Solution Tools (none)
- Datacenter Management Tools (none)

#### Services/Education

- Vouchers: none

and the second se	-				-
		- 1	-		-
	_	-		-	-
	-		-		
_		-	-		
	_				

# System i CBU Standard Edition Content

#### Function

- Support for Multiple Operating Systems (i5/OS, AIX 5L, and Linux)
- Support for Web Modernization (enhanced WebFacing support)
- Support for Dynamic Logical Partitioning
- Enterprise Enablement: none
- Support for Capacity on Demand

#### Software

8

- Licensing for i5/OS (one processor license entitlement)
- e-business Solution Tools (none)
- Datacenter Management Tools (none)

#### Services/Education

- Vouchers: none



## The Capacity BackUp Edition Offering Guide

	CBU E	dition	CBU
			Standard Edition*
	i5/OS	Enterprise Enablements	i5/OS
595 4/32-way	4	4	4
595 2/16-way	2	2	2
570 2/16-way	1	1	1
570 1/8-way	1	1	1
570 1/4-way	1	1	1
550 1/4-way	1	1	1
520 1- way	1	1	0
520 2-way	2	2	0
520 1/2 - way	1	1	1

Permanent processor activations (beyond the base) may now be purchased on a CBU system to support additional application workloads, (e.g. development, business intelligence)

IBM i5/OS license entitlements, Enterprise Enablements & IPLA software licenses to primary system processors may now be transferred to the CBU system while the respective primary system processors are inactive – enabling a CBU system to provide failover/role-swap for a full range of test, disaster recovery and high-availability scenarios. System registration is required.

_	_				
	-		-		_
	_		and it		-
	-		-	-	
					-
		-	_		

## Registering an Order for a CBU Edition

- An order for a new CBU Edition <u>must be</u> <u>registered</u> in order for the system to be fulfilled
  - Register at www.ibm.com/systems/i/hardware/cbu
- Since the CBU Edition has new, more flexible terms and conditions for transferring licenses and Enterprise Enablements between systems, clients must sign a new license agreement
  - Electronically in most cases or by fax if necessary
- The order will only be scheduled for manufacture after the system is registered and the signed license agreement is transmitted to IBM
- The 595/570/550 and 520 1/2-way CBU Editions require agreement to the terms and conditions associated with the temporary transfer of i5/OS and 5250 Enterprise Enablement entitlements. The 1-way 520 does not require this step as temporary transfers do not apply.

#### System i Capacity BackUp Registration

#### **Registration form**

The System i Capacity BackUp Editions are designed to enable a new i5 system to act as a backup system in a high function, high availability or disaster recovery environment. To be eligible for this offering, you must provide the following information about your installation and accept the terms and conditions of the offering requested in the registration process below, prior to the shipment of your System i CBU Edition.

Client information
* Name:
* E-mail:
* Country: Select a country
* Phone number: (including country code)
* Fax number: (including country code)
Company information
* Company Name:
* IBM Customer Number of Primary System i5:
Hardware information
* Select Your Primary system:
Select one
* Primary system Serial #: (or Plant Order # if on order)



# Primary System Eligibility Summary

Primary System	Eligible CBU System
i810 1w, 2w	i520 1w
i825 3/6w	i550 1/4w
i870 5/8w	i570 1/4w
i870 8/16w	i570 1/8w
i890 16/24w	i570 1/8w
i890 24/32w	i570 2/16w i595 2/16w
l520 1w	i520 1w
i520 1/2w	i520 1w, i520 1/2w
i520 2w	i520 1w, i520 1/2w
i550 1/4w	i550 1/4w
i570 1/2w	i570 1/4w
i570 2/4w	i570 1/4w
i570 4/8w	i570 1/4w, 1/8w
i570 9/12w, 13/16w, 8/16w	i570 1/4w, 1/8w, 2/16w
i595 8/16w	i595 2/16w
i595 16/32w	i595 2/16w, 4/32w
i595 32/64w	i595 2/16w, 4/32w



## If CBU used in Disaster Recovery Mode Only

- Registration record will be checked upon disaster declaration (See disaster definition/declaration on CBU Website)
- Additional Processors on the CBU can be turned on and used at no additional charge in the event of a disaster to restore production system. (See Disaster Definition)
  - Order Temporary Keys thru On/Off contract procedure
    - Keys are required to activate the required processors
  - Processors cannot exceed the number of processors to provide the approximate cpw capacity in active use of the registered primary system
  - Additional processors can be turned on at no charge up to the number required to replicate the production system. This is additive to the workload already running on the CBU workload
- On Demand Memory IS NOT included in Disaster Operations



### If CBU is to be used in Switchover mode

- Registration record will be checked for the primary system
- Unlike the High Availability Edition, i5OS Licenses can be temporarily switched from the production system to the new CBU
  - License Agreement for i5OS transfer Ts and Cs must be reviewed by customer. See CBU Web Site
  - In an active "switchover" i5OS license are temporarily moved to the CBU edition, then returned to the primary upon the "switchback".
- i5OS licenses and enterprise enablements on the primary can be transferred to the CBU
  - OPTIONALLY purchased licenses can be moved one-for-one-to an activated processor on the CBU.
    - Base licenses on Power 4 CANNOT TRANSFER Optional Only
- The necessary processors need to be PERMANENTLY activated on the CBU to run the transferred licenses.
  - CBU processors should be permanently activated to accommodate the licenses. (They will have to be lpar'd in a non-active partition if activated and not used)
  - Production system must assume backup role and cannot use transferred i5OS licenses per the License Agreement.
  - The total # number of licenses in use must remain the same between both 5XX systems
  - If Primary is Power4 based, additional licenses will have to be purchased on either the primary or CBU to support transferred workload.
- On/Off daily charges would apply to any processors used in the switchover that are not permanently activated.
  - You need KEYS to activate processors –Temporary (On/Off) or permanent
  - i5OS keys are assigned to the production system are not required on the CBU for licenses temporarily transferred. IPLA software PIDs will require back-up keys.
- CBU based i5OS licenses CANNOT be moved temporarily to the production system.

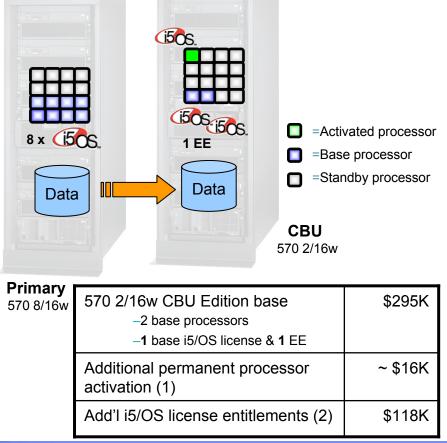
IDM O	TETEEE
IRM S	ystem i
	yotonni



### Example : Disaster Recovery +

Clie	ent wants to establish a Disaster Recovery site for their ERP system (570 8/16w EE) AND wishes to utilize second system to support application development & test
1.	Purchase i570 2/16w CBU Edition
2.	Purchase a permanent processor activation for CBU Edition
3.	Purchase 2 additional i5/OS license entitlements; one for 2 <sup>nd</sup> base processor and one for the additional permanent processor activation on CBU system
4.	Sign-up for On/Off Capacity-on-Demand to be prepared to use stand-by processors in the event of a disaster

5. Utilize no-charge On/Off CoD processor days to perform an initial test of failover to CBU system

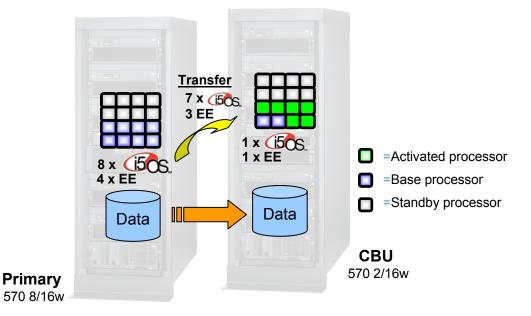


Prices are for illustration only and are subject to change without notice

-	_		_
	-		_
	-	and the	
	-		
_			

### Example : High Availability / Failover (planned/unplanned outages)

- Client wants to use a CBU system to support planned outages for their production system
- Purchase i570 2/16w CBU Edition 1.
- 2. Purchase 6 additional permanent processor activations for CBU Edition
- 3. Register at CBU website to enable 7 processors on CBU as eligible for temporary transfer of i5/OS license entitlement and Enterprise Enablement features



570 8/16w Enterprise Edition -8 base processors -1 base i5/OS license & 1 EE	\$665K	570 2/16w CBU Edition base -2 base processors -1 base i5/OS license & 1 EE	\$295K
Add'l permanent processor activations (0)	\$0K	Additional permanent processor activations (6)	~ \$97K
i5/OS licenses (7x \$59K)	\$413K	Add'l i5/OS licenses (0)	\$0K
Enterprise Enablements (all)	\$150K	Add'l Enterprise Enablements	\$0K
Total	\$1,228K		\$392K

Prices are for illustration only and are subject to change without notice

15



## Positioning The HA & CBU Editions

	HA Edition	Earlier CBU Edition	<i>Enhanced</i> CBU Edition
Disaster Recovery	Yes	Yes	Yes
High Availability	Yes	No	Yes
Solutions Supported: HA ISV Solutions Independent Auxiliary Storage Pools Cross Site Mirroring (XSM) IBM DS8000	Yes No No No	Yes Yes Yes Yes	Yes Yes Yes Yes
Permanent Processor Activations	Yes	No	Yes
Temporary i5/OS, AIX 5L, Linux License Transfers	No	No	Yes
Temporary Enterprise Enablements Transfers	No	No	Yes
Pre-requisite of a 810/825/870/890 or 520/550/570/595 as Primary System	Yes	No	Yes
Upgrade into Edition from 810/825/870/890	No	No	Yes
Registration of Primary System to Qualify	Yes	No	Yes
No Charge On/Off CoD if Primary System Down by Disaster	No	Yes	Yes
Primary System Must be Same Size or Larger	Yes	No	Yes



# Who Should Consider the CBU Edition

#### 1. Customers want to get started with DR, then deploy to HA

- Enables starting with low-cost DR, then expanding to full HA solution

#### 2. Customers using 3<sup>rd</sup> party disaster recovery services

Provides a compelling cost case for in-sourcing HA/DR

#### 3. Customers considering an HA project

Matches a wider set of business objectives with broader solution options

### 4. Customers using 8xx systems for backup

- Upgrades from the 8xx are flexible, cost effective alternatives

### 5. Customers using Standard Edition

- First System i HA/DR offering for clients without 5250 OLTP applications



## HA/DR ISV Enhanced CBU Companion Offers

HA/DR ISV	Companion Offer	Website URL
DataMirror	DataMirror iCluster for CBU	www.datamirror.com/cbu
iTera	Echo <sup>2</sup> for CBU	www.iterainc.com/cbu
Lakeview Technology	MIMIX CBU Express	www.lakeviewtech.com/cbu
Maximum Availability	NoMax CBU	www.maxava.com/cbu
Trader's	Quick EDD CBU Edition 2006	www.quick- edd.com/uk/promos_ibm.htm
Vision Solutions	Orion CBU	www.visionsolutions.com/cbuoffer

To activate hyperlinks, view in Screen Show mode



### Pricing Summary August 8, 2006 CBU Announcements

CBU	Price	CBU Standard	Price	HA Editions	Price
550 1/4w	\$109,000	550 1/4w	\$59,000	550 1/4w	\$190,000
570 1/4w	\$165,000	 570 1/4w	\$115,000	570 2/4w	\$289,000
570 1/8w 570 2/16w	\$195,000 \$295,00	 570 1/8w 570 2/16w	\$145.000 \$245,000	570 4/8w 570 8/16w	\$363,000 \$565,000
570 2/10w	\$255,00	 570 2/10W	\$245,000	570 8/10W	\$505,000
595 2/16w	\$545,000	 595 2/16w	\$445,000	595 8/16w	\$1,295,000
595 4/32w	\$880,000	595 4/32w	\$680,000	595 16/32w	\$1,655,000

Prices are in US Dollars as of August 11, 2006 ; they are for information only and are subject to change.

### Pricing Summary October 10 – 520 CBU Announcements

CBU Model	CBU Enterprise Edition Price	CBU Standard Edition Price	HA Edition Price
520 1/2w	\$85,000	\$35,000	\$109,999
520 1 (1200)	\$33,000	-	40,500
520 1 (2800)	\$64,000	-	82,900
520 1 (3800)	-	\$29,000	

Prices are are for illustration only and are subject to change.



### CBU Edition Eligibility for i550/570/595 - Feature Detail

This chart shows what CBU Edition a customer is eligible to order given their 5xx primary system.

Primary System i	Enterprise Edition FC	Standard Edition FC	Eligible n-way CBU	CBU Edition FC (with 5250 OLTP)	CBU Standard Edition FC
550 1/4-way 1.65GHz (3300-12000 CPW)	#7463	#7462	550 1/4w	#7921	#7920
550 1/4-way 1.9GHz (3800-14000 CPW)	#7155	#7154	550 1/4w	#7921	#7920
570 1/2-way 1.65GHz (3300-6000 CPW)	#7491 / #7489	#7490 / #7488	570 1/4w	#7915	#7914
570 2/4-way 1.65GHz (6350-12000 CPW)	#7495 / #7470	#7494 / #7469	570 1/4w	#7915	#7914
570 2/4-way 2.2GHz (8400-16000 CPW)	#7747	#7757	570 1/4w	#7915	#7914
570 4/8-way 2.2GHz (16700-31100 CPW)	#7748	#7758	570 1/4w & 1/8w	#7915, #7917	#7914, #7916
570 5/8-way 1.65GHz (15200-23500 CPW)	#7472	#7471	570 1/4w & 1/8w	#7915, #7917	#7914, #7916
570 8/16-way 2.2GHz (31100-58500 CPW)	#7749	#7759	570 1/4w & 1/8w & 2/16w	#7915, #7917, #7760	#7914, #7916, #7918
570 9/12-way 1.65GHz ( 25500-33400 CPW)	#7474	#7473	570 1/4w & 1/8w & 2/16w	#7915, #7917, #7760	#7914, #7916, #7918
570 13/16-way 1.65GHz (36300-44700 CPW)	#7476	#7475	570 1/4w & 1/8w & 2/16w	#7915, #7917, #7760	#7914, #7916, #7918
595 8/16-way 1.65GHz (24500-45500 CPW)	#7497	#7496	595 2/16w	#7911	#7910
595 8/16-way 1.9GHz (26700-50500 CPW)	#7481 / #7901	#7480 / #7900	595 2/16w	#7911	#7910
595 16/32-way 1.65GHz (46000-85000 CPW)	#7499	#7498	595 2/16w & 4/32w	#7911, #7909	#7910, #7912
595 16/32-way 1.9GHz (51000-92000 CPW)	#7483 / #7904	#7482 / #7903	595 2/16w & 4/32w	#7911, #7909	#7910, #7912
595 32/64-way 1.65GHz (86000-165000 CPW)	#7985	#7984	595 2/16w & 4/32w	#7911, #7909	#7910, #7912
595 32/64-way 1.9GHz (92000-184000 CPW)	#7487 / #7907	#7986 / #7906	595 2/16w & 4/32w	#7911, #7909	#7910, #7912



### CBU Edition Eligibility for 8xx - Feature Detail

This table shows what CBU Editions (on the right) a customer is eligible to order given their 8xx primary system (on the left).

Primary System i	Enterprise Edition FC	Standard Edition FC	Eligible n-way CBU	CBU Edition FC (with 5250 OLTP)	CBU Standard Edition FC
825 3/6-way POWER4 (3600-6600 CPW)	#7418	#7416	550 1/4w	#7921	#7920
870 5/8-way POWER4 (7700-11500 CPW)	#7433	#7431	570 1/4w	#7915	#7914
870 8/16-way POWER4 (11500-20000 CPW)	#7421	#7419	570 1/8w	#7917	#7916
890 16/24-way POWER4 (20000-29300 CPW)	#7424	#7422	570 1/8w	#7917	#7916
890 24/32-way POWER4 (20000-29300 CPW)	#7427	#7425	570 2/16w , 595 2/16w	#7760, #7911	#7918, #7910
890 16/24-way pre editions *	n/a	n/a	570 1/8w	#7917	#7916
890 24/32-way pre editions *	n/a	n/a	570 2/16w & 595 2/16w	#7760, #7911	#7918, #7910

\* Author believes all pre-edition 890 systems have been upgraded to edition-based 890 systems. If not true and a pre-edition 890 wishes to acquire a CBU system, contact Mark Olson or Steven Finnes IBM Rochester for exception processing. Normal eligibility approval processes check against the edition feature code numbers and will obviously fail the check if an edition feature code is not found.



### CBU Eligibility for System i 520 - Feature Detail

This table shows what CBU Editions (on the right) a customer is eligible to order given their primary system (on the left).

Primary System i	Enterprise Edition FC	Standard Edition FC	Eligible n-way CBU	CBU Edition FC (with 5250 OLTP)	CBU Standard Edition FC
810 1-way (750 CPW)	7406	7404	520 1-way (1200 CPW / 3800 CPW)	7710	7712
810 1-way (1020 CPW)	7409	7407	520 1-way (1200 CPW / 3800 CPW)	7710	7712
810 1-way (1470 CPW)	7410	7412	520 1-way (1200 CPW / 3800 CPW)	7710	7712
810 2-way (2700 CPW)	7430	7428	520 1-way (1200 or 2800 CPW / 3800 CPW)	7710, 7711	7712
520 1-way 1.5GHz (1000 CPW)	7459	7458	520 1-way (1200 CPW / 3800 CPW)	7710	7712
520 1-way 1.5GHz (2400 CPW)	7453	7452	520 1-way (1200 or 2800 CPW / 3800 CPW)	7710, 7711	7712
520 1-way 1.65GHz (3300 CPW)	7455	7454	520 1-way (1200 or 2800 CPW / 3800 CPW)	7710, 7711	7712
520 2-way 1.65GHz (6000 CPW)	7457	7456	520 1-way or 1/2-way (1200 or 2800 or 3800-7100 CPW / 3800 or 3800-7100 CPW)	7710, 7711, 7721	7712, 7720
520 1-way 1.9GHz (1200 CPW)	7734	n/a	520 1-way (1200 CPW)	7710	n/a
520 1-way 1.9GHz (2800 CPW)	7735	n/a	520 1-way (1200 or 2800 CPW)	7710, 7711	n/a
520 1-way 1.9GHz (3800 CPW)	n/a	7784	520 1-way (3800 CPW)	n/a	7712
520 1/2-way 1.9GHz (3800-7100 CPW)	7736	7785	520 1-way or 1/2-way (1200 or 2800 or 3800-7100 CPW / 3800 or 3800-7100 CPW)	7710, 7711, 7721	7712, 7720



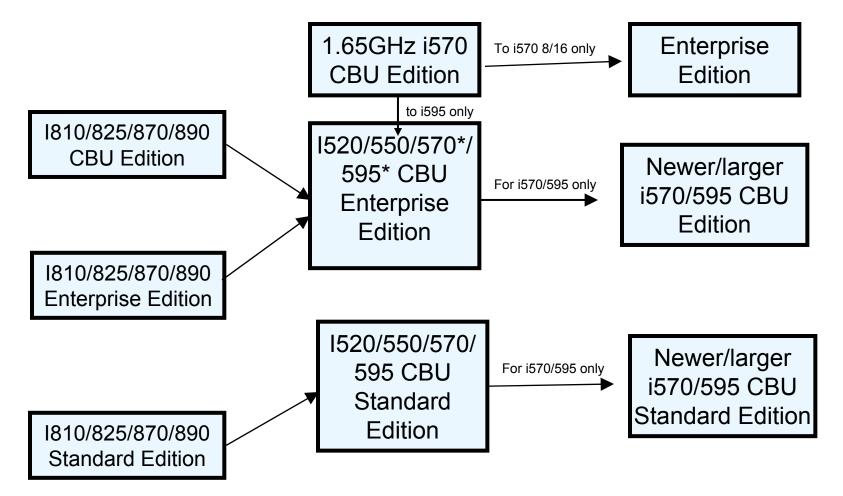
### CBU Disaster Recovery Test Days – On/Off CoD Demand

CBU Edition	Processor Days For Testing
i520 1/2w	3
i550 1/4w, 570 1/4w	9
i570 1/8w	21
i570 2/16w, 595 2/16w	42
i595 4/32w	84

- Test days are credited as part of On/Off daily usage reports.
- Requires contracts in place to get necessary keys to activate processors



## CBU Upgrade Paths



_	_	
-	-	
	-	
<u> </u>		

# IBM System i Capacity BackUp Edition

#### Save Time

Flexible systems that simply adapt to your business needs

#### Save Money

i Innovative design delivers value while minimizing new investments

#### Lower Risk

i.

26

Dependable design can reduce operating risk for your business applications



 -		_		
-				
-	-	and a	-	-
_		-		-

# **Backup Information**



- 1. What if I already have an Enterprise Edition such as a model 870 and I want to upgrade to the 570 CBU Edition. What happens to my i5/OS Licenses? A: Any additional i5/OS licenses purchased on the i870 (or i90) will migrate. Normal upgrade rules apply.
- 2. Assuming that I have purchased enough processor activations on the CBU Edition, can I switch to the CBU system and run there for as long as I want? A: Yes, the switching process involves the temporary use of i5/OS and Enterprise Enablement entitlements, you will be required to tell IBM how many processors will be involved in the entitlement transfer.
- 3. When I switch can I transfer both the i5/OS processor entitlements and Enterprise Enablements?

A: Yes, You are entitled to temporarily use the i5/OS licenses and or Enterprise Enablements from the primary system processor which is not in production. The state of a processor is the same as the state of the partition with which it is associated. For example, a four processor partition running at 25% utilization has four processors in production.

- 4. Can I purchase additional processor activations after initial order? A: Yes
- 5. What are the rules for which kind of high availability solution I must use?

A: There are no rules regarding which solution you can use. Most customers will likely use one of the High Availability software solutions from an IBM ISV partner, some customers will use a Storage Server like the DS8000 and still others will use Cross Site Mirroring (XSM). You may even use a manual back up process.



6. I have an i570 CBU with two base processors, one i5/OS processor license entitlement and one additional Enterprise Enablement. Can I run any workload I want with those base processors?

A: Yes. The first processor on the CBU Edition is fully licensed for any workload. The second processor may be used for failover (with transferred license entitlements from a primary system) OR i5/OS, Linux or AIX 5L may be purchased to run workload concurrently.

- 7. Can I register my CBU to my model i870? A: Yes. the primary server can be a POWER4 i825, 870 or 890.
- 8. What happens if the registration process isn't completed? A: the CBU will not be scheduled for manufacture and IBM will contact the IBM geo/country business development manager to resolve.
- 9. Can I temporarily transfer my AIX 5L and my Linux OS License to my CBU system? A: Yes
- **10.** Will I be able to transfer my Enterprise Enablements to a Standard Edition CBU? A: No
- **11.** Are there any CPW prerequisites on the primary verses the CBU system? A: Yes, Primary system must be same model and of equal or greater capacity that CBU system ordered, e.g. i570 2-4 way = i570 1-4 CBU
- **12.** How many System i systems can I pair with my CBU Edition for the purpose of doing temporary entitlement role swaps of the i5/OS and Enterprise Enablements? *A:* Only one System i which is designated as the primary system (and must be owned by the customer) may be paired to a CBU for the purpose of role swap operations.



13. Can I support other non-System i servers with my CBU Edition to conduct backup recovery operations?

A: Yes, in fact you can add additional Linux and AIX 5L workload to the system assuming you have enough processors activated to support the workload.

14. Must every Licensed Program product that is installed on the primary system be purchased additionally on the CBU system?

A: No. IBM IPLA license agreements allow you to transfer Program Products to a backup server as long as the primary server is down or not in production. Of course, your should license any program products that are used on the CBU when the primary system is active.

**15.** Can I use the System i Capacity BackUp Edition for my IASP/switched disk implementation ?

A: Yes, in fact you may use any solution approach that you choose.

16. Can I use the System i Capacity BackUp Edition for tape backup?

A: Yes, but it is your responsibility to insure that you have sufficient resources such as processor activations, i5/OS Licenses and Enterprise Enablements to accomplish your business objectives.

17. I need to take my primary system down for two or three hours of maintenance, can I temporarily transfer i5/OS licenses and Enterprise Enablements from my primary system to my CBU system?

A: Yes, of course. However, remember, the transfer of the i5/OS processor entitlements requires that you not use the corresponding amount of resources on the primary machine while the entitlement is transferred to the CBU Edition.



18. I have three distributed servers and I would like to back up to a Capacity BackUp offering. Can I do this?

A: The CBU edition is designed to be "paired" with and transfer licenses from a single primary system of equal or greater capacity. You may attach more than one system to the CBU however license transfer can occur only from one pre-registered primary system.

**19.** Can a business recovery service provider use the System i Capacity BackUp offering to support multiple customers?

A:CBU is designed and priced to support one primary system within the same enterprise.

20. Customer has primary EE, wants to upgrade "older" 8xx to CBU to match primary, but older 8xx is Standard edition (which only upgrades to standard edition CBU) can they do it?

A: No.

21. Customer has two i595s in the same data center doing HA by running 50% production on each machine, and backup 50% of each machine to the other (world class HA). With that said, how could I locate a CBU box at a separate location and get both i595 production machines on the CBU box?

A: Special bid, the CBU Edition is designed to allow transfer of entitlements from only one pre registered primary machine.



22. How does the automatic flow of licenses between the primary and CBU box occur? Is there something that has to be done other than sign the contracts and register CBU machine? Can the customer switch the workloads at anytime without any notification to IBM?

A: The only thing the customer needs to do is to register the number i5/OS license entitlements and Enterprise Enablements on the primary system that they choose to use in role-swap environment. These entitlements may be used on either the primary system or the CBU system but not both at the same time.

#### 23. What is a role swap environment?

A: The work on processor one processor is transferred to another processor on another system. This type of operation is typically done for maintenance or for the recovery from an unplanned outage or for testing purposes. The key point here is that work is transferred from one system to another.

24. I want to implement two 8-way i570s and I want to split the workload and the backup so that 4 of the processors on the i570 Enterprise Edition are backed up by 4 processors on the i570 CBU, and 4 processors on the CBU are backed up on the i570 Enterprise Edition. Can i do this?

A: yes, but remember the CBU can't be the "source" of the entitlements. What you need to do is to purchase the activations and entitlements on the i570 Enterprise Edition and transfer four of them to the CBU. The entitlements must always originate on the primary server and if the primary system were sold, the entitlements go with the primary system. This is why we say that they are "temporary" when utilized on the CBU.



### i5/OS Temporary Transferal Mechanics

- Every System i machine comes with an i5/OS license. The customer also has a specific number of "i5/OS processor license entitlements" (commonly called i5/OS licenses or i5/OS processor licenses).
- A software key tells each system's license manager how many i5/OS processor license entitlements each system has. If the customer ever runs/assigns more i5/OS work than the system has entitlements; then messages are periodically issued to the operator indicating the system is out of license compliance. By the terms of the IBM licensing agreement, the customer must then bring the system into compliance by either a) reducing i5/OS workload or b) adding i5/OS processor license entitlements.
- Signing the additional license agreement for CBU temporary transfers documents that IBM and the customer understand when entitlements can be transferred from the primary to the CBU system. (Signature is either a real signature or a "click to accept".)
- IMPORTANT ... when entitlements are temporarily transferred to the CBU system, the software key information on <u>neither</u> machine is altered. Thus the CBU system will issue the out-ofcompliance message indicating i5/OS is out of compliance The additional license agreement terms give permission to the customer under this situation to ignore these messages. The customer agrees to monitor the i5/OS usage on both the primary and CBU systems to ensure the i5/OS usage on the pair of machines does not exceed the total number of i5/OS processor license entitlements.



## **Trademarks and Disclaimers**

© IBM Corporation 1994-2006. All rights reserved.

References in this document to IBM products or services do not imply that IBM intends to make them available in every country.

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

AS/400	eServer	i5/OS	System i5
AS/400e	@server	iSeries	
Blue Gene	IBM	OS/400	
e-business on demand	IBM (logo)	System i	

Rational is a trademark of International Business Machines Corporation and Rational Software Corporation in the United States, other countries, or both.

Intel, Intel Logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product or service names may be trademarks or service marks of others.

Information is provided "AS IS" without warranty of any kind.

All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer.

Information concerning non-IBM products was obtained from a supplier of these products, published announcement material, or other publicly available sources and does not constitute an endorsement of such products by IBM. Sources for non-IBM list prices and performance numbers are taken from publicly available information, including vendor announcements and vendor worldwide homepages. IBM has not tested these products and cannot confirm the accuracy of performance, capability, or any other claims related to non-IBM products. Questions on the capability of non-IBM products should be addressed to the supplier of those products.

All statements regarding IBM future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. Contact your local IBM office or IBM authorized reseller for the full text of the specific Statement of Direction.

Some information addresses anticipated future capabilities. Such information is not intended as a definitive statement of a commitment to specific levels of performance, function or delivery schedules with respect to any future products. Such commitments are only made in IBM product announcements. The information is presented here to communicate IBM's current investment and development activities as a good faith effort to help with our customers' future planning.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

Photographs shown are of engineering prototypes. Changes may be incorporated in production models.